ABSTRACT

A filter appliance including a dilution device, wherein the diluted portion remains largely constant when the entire volume flow is modified. Said filter device is characterized in that the flow characteristic – defined by the pressure loss function $\Delta p_B(\dot{V}_B)$ – of the constituents of the dilution line B is adapted to the flow characteristic defined by the pressure loss function $\Delta p_A(\dot{V}_A)$ – of the constituents of the filter line A, in such a way that the dilution condition holds good for at least one diluted portion X where $X = \dot{V}_B/\dot{V}_A+\dot{V}_B$ for volume flows between $\dot{V}_1$ = 10 liters per hour and $\dot{V}_2$ = 120 liters per hour, first volume flow range, for at least one second volume flow range of at least 5 liters per hour inside the first volume flow range, $\Delta p_A(\dot{V}_A)$ designating the pressure drop over the dilution line B according to the respective volume flows $\dot{V}_A$, $\dot{V}_B$ in liters/min of the water in lines A and B.